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(54) Liquid crystal display device

(57) A NW mode TN-LCDs having significantly improved viewing angle characteristics of both display contrast and gray scale inversion, wherein

a optical compensation layer (A) having a characteristic wherein the refractive index in the thickness direction of the film is lower than that in-plane of said film;

a optical compensation layer (B) having optically positive refractive index anisotropy and having a characteristic wherein the principal optic axis thereof is tilted 20 to 70° from the normal direction of the film;

a uniaxial optical compensation layer (C) having optically positive refractive index anisotropy;

a polarizing film (PL);

a liquid crystal cell (LCC);

are laminated in the following order:

(1) PL, A, B, LCC, B, A, PL

or (2) PL, A, B, C, LCC, C, B, A, PL.

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EUROPEAN SEARCH REPORT

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| DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
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| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (Int.Cl.6) |
| A | US 5 528 400 A (ARAKAWA KOHEI) 18 June 1996 * column 5, line 18 - column 6, line 7 * * column 20, line 1 - column 21, line 13 * * column 22, line 18 - line 38; figures 1,2,7 * | 1,3,4 | G02F1/1335 |
| D,A | EP 0 676 660 A (ROCKWELL INTERNATIONAL CORP) 11 October 1995 * page 6, line 38 - page 9, line 17; figure 8; table 1 * | 1-4 | |
| P,X | US 5 638 200 A (XU GANG) 10 June 1997 * column 3, line 54 - column 4, line 9 * * column 5, line 12 - column 7, line 23; figures 5,6 * | 1 | |
| | | | TECHNICAL FIELDS SEARCHED (Int.Cl.6) |
| | | | G02F |
| The present search report has been drawn up for all claims | | | |
| Place of search THE HAGUE | | Date of completion of the search 12 May 1998 | Examiner Stang, I |
| <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p> | | | |

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